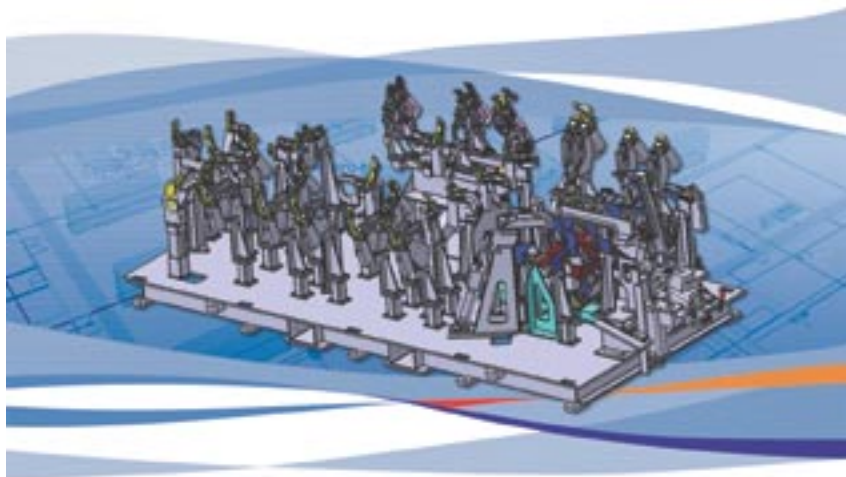


CATIA V5 supports innovation and collaboration at COMAU



“CATIA V5 will create efficiencies that will further improve our competitiveness while increasing our quality and consistency worldwide.”

*– Philippe Ley, Manager,
Mechanical Studies Department,
COMAU Body Welding and Assembly Division
– FRANCE*

Overview

- *A proliferation of different computer aided design (CAD) systems within COMAU created process inefficiencies and resulted in data inconsistencies.*
- *All COMAU Body Welding and Assembly (BW&A) facilities are now required to standardise on CATIA V5 for jigs and fixtures, automating repetitive design tasks.*
- *CATIA V5 facilitates the early detection and resolution of design problems. It also improves collaboration across departments and with suppliers and customers.*

Improved innovation and reduced cycle time

COMAU is a global company that designs systems and equipment used by more than 20 original equipment manufacturers (OEMs) to build their vehicles. Body Welding and Assembly (BW&A), one of six key divisions of COMAU, specialises in designing Body in White assembly lines that perform dozens of complex processes in perfect harmony.

As its global offices proliferated, however, so did the number of different BW&A CAD systems, and the result was anything but harmonious. The incompatible systems isolated each office, making it impossible to share difficult design problems or assign workers in one office to help those in another on large projects.

When a major project ran late because the lead office couldn't handle the workload and no other COMAU team could access the data to assist, people turned to Philippe Ley, Manager of the Mechanical Studies Department at BW&A in France, to orchestrate a solution.

CATIA V5: One system, many benefits

Ley's team chose CATIA V5 in accordance with the global strategy of the COMAU BW&A. What's more, COMAU's suppliers are required to do the same – no CATIA, no more contracts.

"It's a requirement for all of our suppliers now," Ley said. "If they want to bid on work from COMAU, they must have CATIA V5. Most of them have been very receptive because they know that having CATIA V5 is good not only for COMAU but also for them. It allows them to work with many automotive customers."

A move to CATIA V5 allowed COMAU to adopt a Windows® platform, saving money on systems while delivering superior surfacing and knowledgeware capabilities. CATIA V5 also simplifies collaboration with COMAU's customers, most of which are standardising on CATIA V5.

"If a design is created in France then it could be modified in China," Ley said. "If the Chinese have a big project and need help to meet a deadline, engineers in Italy and France could step in. We can work directly with our customers to quickly resolve problems and deliver better quality during studies. It gives us much better flexibility."

Building know-how into every design

So far, Ley said, reaction to CATIA V5 within COMAU BW&A has been positive. "We can move easily from 3D to 2D and back to 3D without losing any links. It's easy to make changes; we just plug in the new numbers and CATIA V5 adjusts every aspect of the design."

Knowledgeware is a powerful aspect of CATIA V5 that COMAU is eager to fully utilise, Ley said. By capturing and standardising COMAU's design

knowledge as rules within CATIA V5, most mistakes can be automatically detected and resolved by the system. And by freeing designers from routine tasks, CATIA V5 creates more opportunity for creativity and innovation.

CATIA V5's ability to standardise COMAU's expertise as pre-defined tooling was one of the solution's main attractions for the company. Ley's team is now able to use complete intelligent tooling units that automatically select and adopt appropriate standard components. Knowledgeware allows Ley's team to reduce its time for pre study. It also enhances quality by helping to ensure tooling design is consistent across COMAU's various sites.

By using the Generative Mechanical Design method, COMAU will be able to automate repetitive design tasks and reduce manual design on jigs and fixtures. "We are currently defining COMAU world wide rules to ensure everyone is working in the same direction," Ley said. "Because we will work on the same philosophy, which we will build into the system, we can do the original studies in France and then modify them two years later in China. This will allow us to ensure that COMAU-specific standards are spread all over the world."



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